

Balbus discusses health impacts of climate change at Senate briefing

By Paula Whitacre

"We need to follow the science," stated Sen. Barbara Boxer, D-Calif., chairman of the U.S. Senate Committee on Environment and Public Works, at the opening of the "[Senate Briefing on the Latest Climate Science](http://epw.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_id=cf67a715-fca1-8682-f7dd-13242e8035d1)" (http://epw.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_id=cf67a715-fca1-8682-f7dd-13242e8035d1) Feb. 13 in Washington, D.C.

The session brought together four climate change experts, including NIEHS Senior Advisor for Public Health John Balbus, M.D. Rather than a formal briefing, the panelists each gave short prepared remarks, followed by an extensive question-and-answer period with members of Congress and their staffs.

Linked Video

[Watch an archived video of the proceedings \(02:26:11\)](#)

In addition to Balbus, participants were James McCarthy, Ph.D., professor of biological oceanography at Harvard University; J. Marshall Shepherd, Ph.D., president of the American Meteorological Society and director for the Program in Atmospheric Sciences at the University of Georgia; and Donald Wuebbles, Ph.D., professor of atmospheric science at the University of Illinois.

Balbus was invited in his roles as the U.S. Department of Health and Human Services principal to the Global Change Research Program (GCRP), co-chair of the interagency Climate Change and Human Health Group under the GCRP, and lead author of the health chapter of the [National Climate Assessment](http://www.globalchange.gov/what-we-do/assessment), (<http://www.globalchange.gov/what-we-do/assessment>) which was released in draft in mid-January.

Climate change and the implications on human health

In his prepared remarks, Balbus drew from the health chapter of the Assessment:

- Climate change threatens human health and well-being in many ways, including changes in water and food supplies, and inundation of low-lying coastal areas. Some of these impacts are already being felt in the United States. Drawing on evidence that included an NIEHS-funded he explained, "In addition to hot days causing stress, the extent of summertime temperature swings that people with heart disease and diabetes are exposed to is very important."
- Climate change often acts as a multiplier of existing health threats. He highlighted research on how climate change can worsen pollen release, air pollution, heat stress, and the incidence and range of infectious diseases. "People with underlying diseases, at certain life stages, or with other social risk factors, are more vulnerable," he said.
- Measures to reduce emissions of heat-trapping gasses or improve community resilience can have significant and immediate health benefits. Referring to NIEHS-supported [research](http://www.ncbi.nlm.nih.gov/pubmed/19942281) (<http://www.ncbi.nlm.nih.gov/pubmed/19942281>) published in the Lancet, Balbus emphasized the positive benefits to human health from decreased air pollution, increased physical activity, and changes in agricultural practices, among other strategies for reducing the impact of climate change.

Congressional reaction and discussion

The senators and representatives expressed their appreciation to the scientists for their direct and straightforward comments. "Your voices are key," said Boxer. She added that a combination of scientific credentials and the ability to talk understandably to non-scientists is essential in the policymaking process.

The scientists fielded a range of questions, from the current situation to their projections for the end of the century. Sen. Mark Udall, D-N.M., asked about how to take advantage of teachable moments, such as those created by wildfires and drought in his state, to communicate with citizens so they, in turn, press their elected leaders to take action.



Balbus is the NIEHS lead for climate change and global health initiatives. (Photo courtesy of Steve McCaw)



Now in her third term as a U.S. senator, Boxer is known for her concern for the environment. (Photo courtesy of Barbara Boxer)

In response to Udall and to Rep. Henry Waxman, D-Calif., Balbus referred to public health research on risk communication and behavior change, including presentations at a [workshop](#) in January for NIH and Centers for Disease Control and Prevention grantees (see [story](#)). “The research shows that what motivates people to change is not to just scare them, but a more positive call to a greater good,” he said. He noted that investing in research into how people are motivated to change their behaviors has payoffs for public health, broadly, and for climate change-related health impacts, specifically.

Boxer picked up on Balbus’ point about the other positive results that can occur when taking action to reduce carbon, such as improved air quality, as other pollutants decrease. “The bottom line is there are cobenefits to public health,” she said. “That is huge.”

(Paula Whitacre is a contract writer with the NIEHS office in Bethesda, Md.)

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